The Last Line of Defense

By AM2 James Cameron

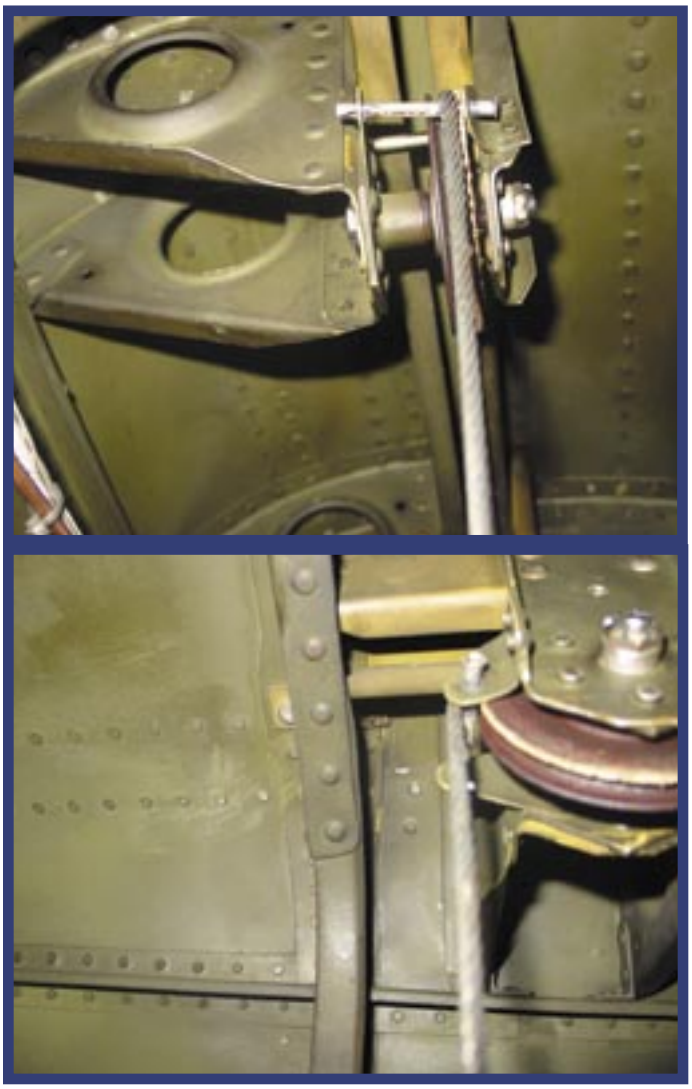
What happens when a CDI or CDQAR gets too involved with a job? Some days, nothing happens, and everything goes just as planned. Then there are those days when things go very wrong, like this one…

It was a beautiful Sunday afternoon in Bahrain; it also was my duty weekend. We had an uncommon maintenance task: One of our UH-3H Sea King helicopters, Desert Duck 748, required a new tail-rotor cable. The daily maintenance meeting was scheduled at 1300 because the cable was not due in until around 1600. Following the maintenance meeting, we began the same old routine—daily and turn-around inspections, servicing, etc. It can all get a little boring sometimes. I can't speak for the other maintainers there that day, but when the senior chief told us the cable was in, I was excited about the project and was ready to work.

Three of us (two senior E-5s and one E-4) were assigned to install the cable. We got our tools and pubs and headed out to the bird. Having installed several of these tail-rotor cables on other aircraft, I felt I had the experience to get the job done right while passing on some of my knowledge. After a quick look through the book, I started routing the cable through the ribs and fairleads, answering questions while I worked. With the cable installed, we started tightening up the fairleads and re-installing the guide pins we had removed earlier. Here's where things went really wrong.

As it turned out, we hadn't removed all of the guide pins (as specified in the pub I carried out to the aircraft). So when I ran the cable over the pulleys, it also went over one of those guide pins. And wouldn't you know, it was the one in the very back that you can't see without a mirror. Oh, I thought the cable was under it because, when I tried to slide the pin back and forth in it's mount, it moved. However, the reason the pin moved was because the cable didn't have tension on it yet. Thinking the cable was routed correctly and running smoothly along all of the pulleys, we completed the tension checks and "quick rig." With our job complete, we went to enjoy our Bahrain liberty.

Two days later, I got a call from the senior chief, telling me that the chief was on his way to pick me up to come into work. I couldn't imagine why they would need me to come in five hours early. The day before,



Desert Duck 748 had flown a 6.0-hour flight with my improperly installed control cable. After a scheduled tension check of my tail-rotor cable, they had discovered my "grave" mistake. Six flight hours with that cable rubbing against a guide pin progressively had broken about 15 or 20 wires. Had it not been for the required tension check at five to 17 hours, it might have launched again and not come home.

So where did I go wrong? Let me count the ways…

I had the book at the aircraft and went through the maintenance procedures but, obviously, not well enough, or I would have removed all of the guide pins. The MIMs clearly tells maintenance personnel to remove all

of the guide pins and reinstall them only after the cable is routed completely and tensioned.

I felt comfortable with the job, and overconfidence got the better of me. This job was supposed to have been a simple remove and replace. I got a little complacent with the task.

I should not have been in such a hurry. I would be lying if I said I didn't want to get out of there on a duty weekend.

It was hot that day, and the tail cone of an UH-3H can get miserable sitting in the flight-line sun.

Finally, I should have had someone else look at the installation. Even with my CDQAR designation, it doesn't hurt to get another pair of eyes on it.

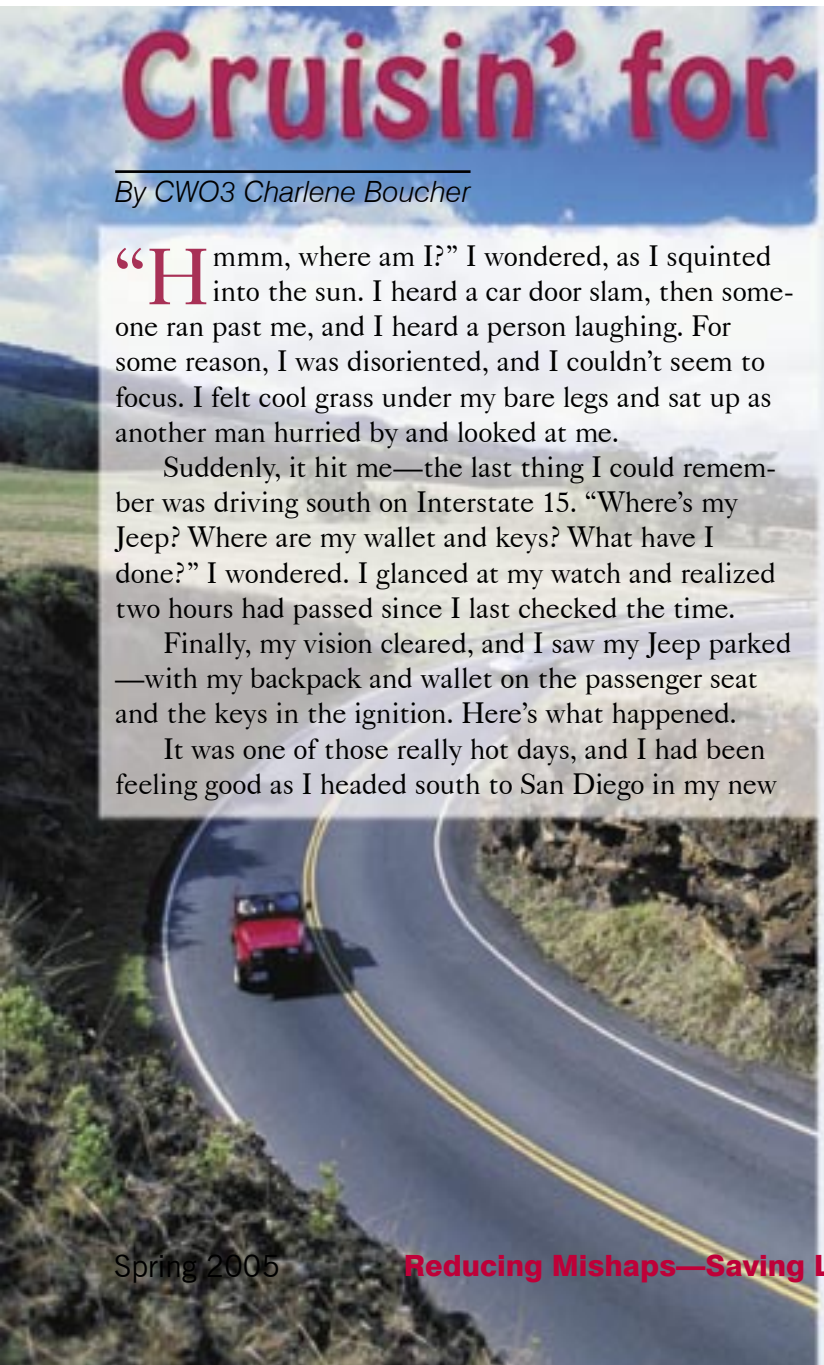
So how do we prevent a recurrence? No matter how simple a job or how many times you've done it, read the pub thoroughly. It might be that one sentence or warning you skip over that could prevent something like this from happening. Maintenance control was not rushing us that day. Just take your time. Liberty is always nice, but getting the job done correctly is the top priority. One mistake can prevent a flight crew and passengers from returning from a mission. Probably the most important thing is to put your ego in check and not be overconfident. Ask someone else to look at your work. It does not mean you don't know what you're doing; it just means no one is perfect.

AM2 James Cameron wrote this article while deployed with HC-2 Desert Ducks in Manama, Bahrain.

Attention to detail is the key to maintenance success, and the author recognizes the multiple factors that led up to this incident. However, asking someone else to look at your work is not a sign of weakness. It is required by NAMP 4790.2H: "CDQARs shall not inspect their own work and sign as inspector." —Ed.

Cruisin' for a Bruisin'

By CWO3 Charlene Boucher



"Hmmm, where am I?" I wondered, as I squinted into the sun. I heard a car door slam, then someone ran past me, and I heard a person laughing. For some reason, I was disoriented, and I couldn't seem to focus. I felt cool grass under my bare legs and sat up as another man hurried by and looked at me.

Suddenly, it hit me—the last thing I could remember was driving south on Interstate 15. "Where's my Jeep? Where are my wallet and keys? What have I done?" I wondered. I glanced at my watch and realized two hours had passed since I last checked the time.

Finally, my vision cleared, and I saw my Jeep parked —with my backpack and wallet on the passenger seat and the keys in the ignition. Here's what happened.

It was one of those really hot days, and I had been feeling good as I headed south to San Diego in my new Jeep Wrangler. The top was down, and the hot wind was whipping through my hair. "I love this Jeep!" I said to myself.

There was only one problem: I had consumed my last root beer, no town was in sight, and my eyelids were getting heavy. "Maybe if I take an ice cube from the cooler... sheesh, it's hot; the ice is melted," I thought. "I'll splash some water on my face, instead."

Unfortunately, none of these efforts worked. I really was having trouble keeping my eyes on the road, my head off the steering wheel, and the Jeep between the lines. After slapping myself silly, I finally found a rest area 10 miles down the road. I pulled in, parked and sprawled on a nice patch of thick, green grass under a small shade tree. In no time, I passed out—never once thinking about the hazardous situation in which I had placed myself before I pulled off.

We hold safety and risk-management training at work all the time, and I'm always preaching these items to my junior troops. In this case, though, I took too long to heed my own advice. It was scary thinking about what could have happened to me. "What if I had fallen asleep at the wheel?" I thought. "What if I had been robbed, beaten and left stranded with no vehicle?" The reality is that we can't afford just to "talk the talk." We also have to "walk the walk."

CWO3 Charlene Boucher was assigned to VAW-117 when she wrote this article.